INTERNATIONAL SEARCH REPORT

Internat'--- Application No PCT/__ 03/03197

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H0481/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 - H04B - H01P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the rele	Relevant to claim No.	
X A E A	WO 02 37709 A (FUKAMACHI KEISUKE HIROYUKI (JP); YOKOUCHI SATORU (JHITACH) 10 May 2002 (2002-05-10) -& EP 1 333 588 A (HITACHI METALS 6 August 2003 (2003-08-06) abstract page 2, line 44-51 page 3, line 6-56 page 6, line 16-58 page 7-8 page 10 page 11, line 1-37 page 12, line 24-58 page 13, line 1-17 page 15, line 6-58 page 16 page 17, column 1-10 figures 1-4,7,16-19,24-26,36-38	P);	1-3,5-8, 10,11 4,9 1-3,5-8, 10,11 4,9
Further documents are listed in the continuation of box C. Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E* earlier document but published on or after the international filling date "L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O* document referring to an oral disclosure, use, exhibition or other means P* document published prior to the international filling date but later than the priority date claimed Date of the actual completion of the international search		Patent family members are listed in annex. *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family Date of malling of the international search report	
31 October 2003		10/11/2003	
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Palentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340–2040, Tx. 31 651 epo nl, Fax: (+31-70) 340–3016	Authorized officer GONZALEZ GUTIER	, B

INTERNATIONAL SEARCH REPORT

Interna Application No
PCT/ -- 03/03197

	INTERNATIONAL SEARCH REPORT	PCT, 03/03197					
C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT							
ategory °	Cilation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.				
A	EP 1 152 543 A (MATSUSHITA ELECTRIC IND COLTD) 7 November 2001 (2001-11-07) abstract page 2, column 1, line 16-58 page 2, column 2, line 1-43 page 3, column 4 page 4, column 5, line 1-23 page 4, column 6 page 5, column 7 page 5, column 7 page 5, column 8, line 1-42 page 6, column 9, line 8-58 page 6, column 10 page 7, column 11-12 page 8, column 13 figures 1,2,4-11,14		1-11				
		1					

Form PCT/ISA/210 (continuation of second sheet) (July 1992)



PCT/ L 03/03197

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0237709	A	10-05-2002	CN EP WO	1394391 T 1333588 A1 0237709 A1	29-01-2003 06-08-2003 10-05-2002
EP 1152543	A	07-11-2001	EP WO US	1152543 A1 0145285 A1 2002137471 A1	07-11-2001 21-06-2001 26-09-2002